

## CLAIMS

What is claimed is:

1. 1. A triangulation-type optical displacement sensor having one or more light-emitting elements for projecting light onto one or more targets to which one or more distances is or are to be measured, and one or more light-receiving elements, at least one of the light-receiving element or elements receiving at least a portion of the light reflected from at least one of the distance measurement target or targets and disposed such that at least one light-receiving surface thereof is substantially perpendicular to at least one optical axis of at least a portion of the projected light, comprising:
  - 8 one or more slits narrowing one or more light beams projected toward at least one of the distance measurement target or targets, and one or more slits narrowing at least a portion of the light reflected from at least one of the distance measurement target or targets.
2. 2. A triangulation-type optical displacement sensor having one or more light-emitting elements for projecting light onto one or more targets to which one or more distances is or are to be measured, and one or more light-receiving elements, at least one of the light-receiving element or elements being receiving at least a portion of the light reflected from at least one of the distance measurement target or targets and disposed such that at least one light-receiving surface thereof is substantially perpendicular to at least one optical axis of at least a portion of the projected light, comprising:
  - 8 one or more slits narrowing one or more light beams projected toward at least one of the distance measurement target or targets, and one or more light collecting elements collecting at least a portion of the light reflected from at least one of the distance measurement target or targets.
3. 3. An optical displacement sensor according to claim 2, wherein at least one of the light collecting element or elements is a cylindrical lens.
4. 4. An optical displacement sensor according to claim 1, wherein one or more filters is or are arranged at the exit side of at least one of the slit or slits narrowing one or more light beams projected toward at least one of the distance measurement target or targets, and one or more filters is or are arranged at the incident

5 side of at least one of the slit or slits narrowing at least a portion of the light reflected  
6 from at least one of the distance measurement target or targets.

1 5. An optical displacement sensor according to claim 2 or 3,  
2 wherein one or more filters is or are arranged at the exit side of at least one of the slit  
3 or slits narrowing one or more light beams projected toward at least one of the distance  
4 measurement target or targets.